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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/386,506	08/31/1999	ELIE-JEAN RAAD	16337.380	1474

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POTOMAC, MD 20854

EXAMINER

HANNETT, JAMES M

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/386,506

Applicant(s)

RAAD, ELIE-JEAN

Examiner

James M Hannett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-13 and 15 is/are rejected.
- 7) ☒ Claim(s) 7 and 14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1: The drawings filed on 8/31/1999 are acceptable subject to correction of the informalities indicated on the attached "Notice of Draftperson's Patent Drawing Review," PTO-948. In order to avoid abandonment of this application, correction is required in reply to the Office action.

The correction will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2: Claim 3 recites the limitation "said keyways". There is insufficient antecedent basis for this limitation in the claim.

3: Claims 6-8 recite the limitation "said filter housing". There is insufficient antecedent basis for this limitation in the claim.

4: Claims 11 and 12 recite the limitation "Said Lens Housing". There is insufficient antecedent basis for this limitation in the claim.

5: Claim 12 recites the limitation "said adaptor". There is insufficient antecedent basis for this limitation in the claim.

6: Claims 13 -15 recite the limitation "Said filter". There is insufficient antecedent basis for this limitation in the claim.

7: Claims 13-15 recite the limitation "Said filter housing". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8: Claims 1, 5, and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,011,661 Weng.

9: As for Claim 1, Weng depicts in Figure 1 a quick change lens mount for connecting a lens assembly to a camera board, Column 2, Lines 42-45; the camera board is viewed as the circuit board. The camera board having a image recording device (3), a filter (2) and a filter frame (14) to position the filter over the image recording device, The image recording device is viewed as the CCD (3) and the filter is viewed as the color filter (2), the filter frame is viewed as the color filter chamber (14). Comprising: A base (1) attached to the camera board having a quick connect coupling for removable coupling to the lens assembly; means for affixing the base Figure 2, filter and filter frame to the camera board. Column 2, Lines 17-34; The quick connect coupling is viewed as the threaded chamber (11) in that it allows for a quick connection of a lens assembly the base is viewed as the optical holder (1), the means for affixing the base is viewed as the screw holes depicted in Figure 2.

10: As for Claim 5, Weng teaches in Figure 2 and on Column 1, Lines 40-50 the use of means for affixing is a pair of screws passing through holes in the camera board and filter frame and engaging threaded holes in the base.

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11: As for Claim 9, Weng depicts in Figure 1 and teaches on Column 2, Lines 42-45 and Column 1, Lines 40-50 a method of mounting a lens assembly to a camera board, comprising:

Forming a base (1) to fit over and lock to an end of the lens assembly; mounting the base over an image recording device (3) and affixed to the camera board; inserting and locking the lens assembly to the base. The base is viewed as the optical holder, the base locks to the lens assembly by means of the threads (11) and the locating hole (18), which locks the lens assembly in place, and the camera board is viewed as the circuit board.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12: Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,011,661 Weng.

13: In regards to Claim 6, Official notice is taken that it was commonly know in the art at the time the invention was made to make the filter and camera housings out of a resilient material so as to shield the filter from impact.

14: As for Claim 13, Official notice is taken that it was commonly know in the art at the time the invention was made to make the filter and camera housings out of a resilient material so as to shield the filter from impact.

15: Claims 2, 4, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,011,661 Weng in view of USPN 4,104,649 Tanaka et al.

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16: In regards to Claim 2, Weng teaches the claimed invention as discussed in Claim 1.

Weng does not teach that the base has an interior opening and the quick connect coupling comprises a pair of slots to permit passage of a key affixed to an end of the lens assembly and a pair of keyways extending circumferentially from ends of corresponding ones of the slots, the slots and keyways dimensioned to receive keys of a lens assembly so as to lock the lens assembly to the base upon engagement of the keys of the lens assembly to respective keyways on the base.

Tanaka et al depicts in Figure 12 the use of a camera that has a base (30) that has an interior opening and the quick connect coupling comprises slots (29) to permit passage of a key (35) affixed to an end of the lens assembly and keyways (29) extending circumferentially from ends of corresponding ones of the slots, the slots and keyways dimensioned to receive keys of a lens assembly so as to lock the lens assembly to the base upon engagement of the keys of the lens assembly to respective keyways on the base. Tanaka depicts a lens assembly that is coupled to the camera base by inserting the lens assembly into the cylindrical opening of the base and rotating the lens assembly so that the lens assembly is locked to the base. Column 14, Lines 20-35 and Column 14, Lines 56-68; The camera base is viewed as the inputting device (30), the slots are viewed as the three arcuate recession points (29a-c), the keys and keyways are viewed as the arcuate projection pawls and the projection pawls. Tanaka is implemented by a used inserting the lens assembly into the slots on the base so that the extending Pawls or keys can enter the base. The lens assembly is then rotated so that the keys and the keyway will engage with each other and lock the lens assembly to the camera base. Tanaka teaches the use of three keys and keyways equally spaced from one another. It would have been obvious to replace the

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three keyways with a two keys spaced equally apart or for that matter four keys and keyways placed equally apart so as to engage with each other. This design of a base and lens assembly with keys and keyways is beneficial over a threaded connection because it allows for a faster replacement of a lens assembly.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the threaded portion of the base of Weng with the Base of Tanaka with keyways so that a lens assembly with keys can be connected to the base to allow for a faster replacement of a lens assembly.

17: In regards to Claim 4, Weng teaches the claimed invention as discussed in Claim 1. Weng does not teach that an end of the lens assembly has a cylindrical surface with a pair of keys affixed thereto on diametrically opposite sides of the cylindrical surface.

Tanaka et al depicts a lens assembly that is coupled to the camera base by inserting the lens assembly into the cylindrical opening of the base and rotating the lens assembly so that the lens assembly is locked to the base. Column 14, Lines 20-35 and Column 14, Lines 56-68;

Tanaka depicts in Figure 12 a lens assembly (LE) that has a cylindrical surface with three keys affixed thereto equally spaced from each other on the cylindrical surface. Tanaka does not teach that there should only be two keys or four keys. However, it would have been obvious to one of ordinary skill in the art to replace the three keys with any number of keys including two keys and have them equally spaced from each other along the cylindrical surface. This design of a base and lens assembly with keys and keyways is beneficial over a threaded connection because it allows for a faster replacement of a lens assembly.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the threaded portion of the base of Weng with the Base of Tanaka with keyways so that a lens assembly with keys can be connected to the base to allow for a faster replacement of a lens assembly

18: As for Claim 11, Weng teaches the claimed invention as discussed in Claim 9. Weng does not teach that the base can have a cylindrical opening with slots and keyways on an interior surface thereof, which slidably receives and engage keys on an end of the lens housing.

Tanaka et al depicts in Figure 12 the use of a camera that has a base (30) that has an interior opening and the quick connect coupling comprises slots (29) to permit passage of a key (35) affixed to an end of the lens assembly and keyways (29) extending circumferentially from ends of corresponding ones of the slots, the slots and keyways dimensioned to receive keys of a lens assembly so as to lock the lens assembly to the base upon engagement of the keys of the lens assembly to respective keyways on the base. Tanaka depicts a lens assembly that is coupled to the camera base by inserting the lens assembly into the cylindrical opening of the base and rotating the lens assembly so that the lens assembly is locked to the base. Column 14, Lines 20-35 and Column 14, Lines 56-68; The camera base is viewed as the inputting device (30), the slots are viewed as the three arcuate recession points (29a-c), the keys and keyways are viewed as the arcuate projection pawls and the projection pawls. Tanaka is implemented by a used inserting the lens assembly into the slots on the base so that the extending Pawls or keys can enter the base. The lens assembly is then rotated so that the keys and the keyway will engage with each other and lock the lens assembly to the camera base. This design of a base and lens

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assembly with keys and keyways is beneficial over a threaded connection because it allows for a faster replacement of a lens assembly.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the threaded portion of the base of Weng with the Base of Tanaka with keyways so that a lens assembly with keys can be connected to the base to allow for a faster replacement of a lens assembly.

19: Claims 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,011,661 Weng in view of USPN 4,104,649 Tanaka et al in further view of USPN 5,455,711 Palmer.

20: As for Claim 3 Weng in view of Tanaka et al teaches the Claimed invention as discussed in Claim 1. Weng in view of Tanaka does not teach that the lens assembly has a removable adapter having a threaded interior opening to receive a threaded end of a lens housing and a base insert end, the base insert end having keys for engagement with the keyways. Weng teaches that the lens assembly has a base with threads to engage with threads on the base of the optical holder. Tanaka teaches that it is advantageous to have a base with keyways to engage keys on a lens assembly to allow for faster connection and disconnection of the lens assembly to the optical housing base.

Palmer teaches in Figure 1 and on Column 5, Lines 37-53 that it is advantageous to have a coupling adapter that has threads on one side that correspond to the threads of the base of a camera and threads of a different size that correspond to the threads of an optical lens assembly so as to allow for an unassociated lens assembly to be coupled to the optical housing. This adapter is designed to have connection means on one end that correspond to the type of

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connection means of the camera base, and connection means on the other end that correspond to the type of connector used on the end of a lens assembly. Palmer does not depict that the adaptor has keys to engage keyways on the optical housing because the optical housing has threaded fastening means as also taught by Weng.

Tanaka et al depicts in Figure 12 the use of a camera that has a base (30) that has an interior opening and the quick connect coupling comprises slots (29) to permit passage of a key (35) affixed to an end of the lens assembly and keyways (29) extending circumferentially from ends of corresponding ones of the slots, the slots and keyways dimensioned to receive keys of a lens assembly so as to lock the lens assembly to the base upon engagement of the keys of the lens assembly to respective keyways on the base. Tanaka depicts a lens assembly that is coupled to the camera base by inserting the lens assembly into the cylindrical opening of the base and rotating the lens assembly so that the lens assembly is locked to the base. Column 14, Lines 20-35 and Column 14, Lines 56-68; The camera base is viewed as the inputting device (30), the slots are viewed as the three arcuate recession points (29a-c), the keys and keyways are viewed as the arcuate projection pawls and the projection pawls. Tanaka is implemented by a used inserting the lens assembly into the slots on the base so that the extending Pawls or keys can enter the base. The lens assembly is then rotated so that the keys and the keyway will engage with each other and lock the lens assembly to the camera base. This design of a base and lens assembly with keys and keyways is beneficial over a threaded connection because it allows for a faster replacement of a lens assembly.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the base of Weng to include the keyways as taught by Tanaka et

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al in order to allow for a faster replacement of a lens assembly. It would have been further obvious to include and modify the adapter of Palmer to have Keys to engage the keyways of the invention of Weng in view of Tanaka et al so as to allow for an unassociated lens assembly to be coupled to the optical housing.

21: In regards to Claim 12, Weng in view of Tanaka et al teaches the Claimed invention as discussed in Claim 1. Weng in view of Tanaka does not teach that the lens assembly has a removable adapter having a threaded interior opening to receive a threaded end of a lens housing and a base insert end, the base insert end having keys for engagement with the keyways. Weng teaches that the lens assembly has a base with threads to engage with threads on the base of the optical holder. Tanaka teaches that it is advantageous to have a base with keyways to engage keys on a lens assembly to allow for faster connection and disconnection of the lens assembly to the optical housing base.

Palmer teaches in Figure 1 and on Column 5, Lines 37-53 that it is advantageous to have a coupling adapter that has threads on one side that correspond to the threads of the base of a camera and threads of a different size that correspond to the threads of an optical lens assembly so as to allow for an unassociated lens assembly to be coupled to the optical housing. This adapter is designed to have connection means on one end that correspond to the type of connection means of the camera base, and connection means on the other end that correspond to the type of connector used on the end of a lens assembly. Palmer does not depict that the adaptor has keys to engage keyways on the optical housing because the optical housing has threaded fastening means as also taught by Weng.

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Tanaka et al depicts in Figure 12 the use of a camera that has a base (30) that has an interior opening and the quick connect coupling comprises slots (29) to permit passage of a key (35) affixed to an end of the lens assembly and keyways (29) extending circumferentially from ends of corresponding ones of the slots, the slots and keyways dimensioned to receive keys of a lens assembly so as to lock the lens assembly to the base upon engagement of the keys of the lens assembly to respective keyways on the base. Tanaka depicts a lens assembly that is coupled to the camera base by inserting the lens assembly into the cylindrical opening of the base and rotating the lens assembly so that the lens assembly is locked to the base. Column 14, Lines 20-35 and Column 14, Lines 56-68; The camera base is viewed as the inputting device (30), the slots are viewed as the three arcuate recession points (29a-c), the keys and keyways are viewed as the arcuate projection pawls and the projection pawls. Tanaka is implemented by a used inserting the lens assembly into the slots on the base so that the extending Pawls or keys can enter the base. The lens assembly is then rotated so that the keys and the keyway will engage with each other and lock the lens assembly to the camera base. This design of a base and lens assembly with keys and keyways is beneficial over a threaded connection because it allows for a faster replacement of a lens assembly.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the base of Weng to include the keyways as taught by Tanaka et al in order to allow for a faster replacement of a lens assembly. It would have been further obvious to include and modify the adapter of Palmer to have Keys to engage the keyways of the invention of Weng in view of Tanaka et al so as to allow for an unassociated lens assembly to be coupled to the optical housing.

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22: Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,011,661 Weng in view of USPN 5,455,711 Palmer.

23: In regards to Claim 10, Weng teaches the claimed invention as discussed in Claim 9.

Weng does not teach the use of a lens assembly includes a separate adapter removable connected to an end of a lens housing and capable of being inserted and locked to the base.

Palmer teaches in Figure 1 and on Column 5, Lines 37-53 that it is advantageous to have a coupling adapter that has threads on one side that correspond to the threads of the base of a camera and threads of a different size that correspond to the threads of an optical lens assembly so as to allow for an unassociated lens assembly to be coupled to the optical housing. This adapter is designed to have connection means on one end that correspond to the type of connection means of the camera base, and connection means on the other end that correspond to the type of connector used on the end of a lens assembly.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the adapter of Palmer to so as to allow for an unassociated lens assembly to be coupled to the optical housing.

24: Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,011,661 Weng in view of JP-10073864 Nemoto.

25: In regards to Claim 8, Weng teaches the claimed invention as discussed above in Claim 6. Weng does not teach that the filter housing is made of an elastomeric material.

Nemoto teaches in Paragraphs [0023 and 0023] of the translation that it is advantageous to manufacture a lens mount out of an elastic material to facilitate the assembly of a CCD camera

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by allowing for the easy insertion of a filter assembly and further to make the lens mount fixable.

The elastic material is viewed as the elastomeric material.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to manufacture the optical housing of Weng with the elastic material of Nemoto in order to allow for the easy insertion of a filter assembly and further to make the lens mount fixable.

26: As for Claim 15, Weng teaches the claimed invention as discussed above in Claim 13.

Weng does not teach that the filter housing is made of an elastomeric material.

Nemoto teaches in Paragraphs [0023 and 0023] of the translation that it is advantageous to manufacture a lens mount out of an elastic material to facilitate the assembly of a CCD camera by allowing for the easy insertion of a filter assembly and further to make the lens mount fixable. The elastic material is viewed as the elastomeric material.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to manufacture the optical housing of Weng with the elastic material of Nemoto in order to allow for the easy insertion of a filter assembly and further to make the lens mount fixable.

Allowable Subject Matter

27: Claims 7 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

28: The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 4,281,895 Mohr teaches the use of a quick change lens mount; USPN 3,529,525 Yamashita teaches the use of a lens mount that allows for the exchange of different lens assemblies; US Design Patent 408,833 Irie depicts a camera mounted on a board with a lens assembly and mounting means.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M Hannett whose telephone number is 703-305-7880. The examiner can normally be reached on 8:00 am to 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 703-305-4929. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-842-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer service whose telephone number is 703-308-6789.

James Hannett
Examiner
Art Unit 2612

JMH
March 31, 2003


WENDY R. GARBER
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